

CLAIMS

What is claimed is:

1. A pinion nail verification assembly for use in a nail loading assembly coupled with a nail driving assembly of a nail gun, comprising:  
an axle coupled with the nail loading assembly, the axle for providing an axis of rotation;  
a pinion coupled with the axle, the pinion for engaging a nail advancing down the nail loading assembly,  
wherein the pinion assembly allows the nail to advance to the nail driving assembly when the nail is correctly positioned parallel with the axis of rotation of the axle.
2. The pinion nail verification assembly of claim 1, further comprising a lock assembly coupled with the pinion, the lock assembly for locking the position of the pinion.
3. The pinion nail verification assembly of claim 1, wherein the pinion is coupled with a first and second mounting members pivotally coupled with the adjustable angle magazine.
4. The pinion nail verification assembly of claim 1, wherein the nail loading assembly is an adjustable angle magazine.
5. The pinion nail verification assembly of claim 4, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.
6. The pinion nail verification assembly of claim 4, wherein the adjustable angle

magazine further comprises an articulating pusher assembly.

7. The pinion nail verification assembly of claim 4, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.
8. The pinion nail verification assembly of claim 1, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
9. The pinion nail verification assembly of claim 1, wherein the nail gun further comprises a clutch assembly.

- ~
10. An adjustable angle magazine for use with a nail gun, comprising:
    - a housing including a first end and a second end, the housing for storing and providing nails in a collated nail strip to a nail driving assembly of the nail gun;
    - an adjustment assembly disposed proximal to the second end of the housing, the adjustment assembly for affixing the position of the housing relative to the nail gun;
    - a universal adapter assembly coupled with the first end of the housing, the universal adapter assembly for pivotally coupling with the nail driving assembly; and
    - a pinion nail verification assembly coupled with the housing, the pinion nail verification assembly for engaging the nail,wherein the pinion nail verification assembly allows the nail to advance to the nail driving assembly if the nail is correctly positioned.
  11. The adjustable angle magazine of claim 10, further comprising a lock assembly coupled with the pinion nail verification assembly, the lock assembly for locking the position of the pinion nail verification assembly.
  12. The adjustable angle magazine of claim 10, wherein the pinion nail verification assembly further comprises a first and second mounting members pivotally coupled with the adjustable angle magazine.
  13. The adjustable angle magazine of claim 10, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.
  14. The adjustable angle magazine of claim 10, wherein the adjustable angle magazine further comprises an articulating pusher assembly.
  15. The adjustable angle magazine of claim 10, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.

16. The adjustable angle magazine of claim 10, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
17. The adjustable angle magazine of claim 10, wherein the nail gun further comprises a clutch assembly.

18. An adjustable angle nail gun, comprising:
- a handle including a first end and a second end, the second end coupled with a fastening assembly;
  - a nail driving assembly coupled with the first end of the handle, the nail driving assembly including a driver blade, the nail driving assembly for driving nails in a collated nail strip;
  - an adjustable angle nose casting assembly coupled with the nail driving assembly, the adjustable angle nose casting assembly for receiving the nail and enabling the operational engagement of the driver blade with the nail;
  - an adjustable angle magazine including a first end coupled with a universal adapter assembly for pivotally coupling with the adjustable angle nose casting assembly and an adjustment assembly disposed proximal to a second end of the adjustable angle magazine, the adjustment assembly for coupling with the fastening assembly, the adjustable angle magazine for storing and providing the nails to the adjustable angle nose casting assembly; and
  - a pinion nail verification assembly coupled with the housing, the pinion nail verification assembly for engaging the nail,
- wherein the pinion nail verification assembly allows the nail to advance to the nail driving assembly if the nail is correctly positioned.
19. The adjustable angle nail gun of claim 18, further comprising a lock assembly coupled with the pinion nail verification assembly, the lock assembly for locking the position of the pinion nail verification assembly.
20. The adjustable angle nail gun of claim 18, wherein the pinion nail verification assembly further comprises a first and second mounting members pivotally coupled with the adjustable angle magazine.
21. The adjustable angle nail gun of claim 18, wherein the adjustable angle

magazine further comprises a pick-off pivot assembly.

22. The adjustable angle nail gun of claim 18, wherein the adjustable angle magazine further comprises an articulating pusher assembly.
23. The adjustable angle nail gun of claim 18, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.
24. The adjustable angle nail gun of claim 18, wherein the adjustable angle nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
25. The adjustable angle nail gun of claim 18, wherein the adjustable angle nail gun further comprises a clutch assembly.

3

26. A nail loading assembly coupled with a nail driving assembly of a nail gun, comprising:  
means for engaging a nail shank of a nail advancing down the nail loading assembly and selectively allowing the nail to advance.
27. The nail loading assembly of claim 26, wherein the means for engaging and advancing the nail is a pinion nail verification assembly disposed within the nail loading assembly.
28. The nail loading assembly of claim 26, wherein the nail loading assembly is an adjustable angle magazine.
29. The nail loading assembly of claim 28, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.
30. The nail loading assembly of claim 28, wherein the adjustable angle magazine further comprises an articulating pusher assembly.
31. The nail loading assembly of claim 28, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.
32. The nail loading assembly of claim 26, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
33. The nail loading assembly of claim 26, wherein the nail gun further comprises a clutch assembly.

34. A method of using a nail gun, comprising:
- loading a collated nail strip into a nail loading assembly coupled with a nail driving assembly of the nail gun;
  - engaging the collated nail strip with a pinion nail verification assembly disposed upon the nail loading assembly; and
  - determining if the collated nail strip provides nails in the correct position for use by the nail gun,
- wherein the pinion nail verification assembly allows the collated nail strip to advance when the spacing of the nails in the collated nail strip is determined to be correct for use by the nail gun.
35. The method of claim 34, wherein the nail loading assembly is an adjustable angle magazine.
36. The method of claim 35, wherein the adjustable angle magazine further comprises a pick-off pivot assembly.
37. The method of claim 35, wherein the adjustable angle magazine further comprises an articulating pusher assembly.
38. The method of claim 35, wherein the adjustable angle magazine further comprises a nail shank pawl assembly.
39. The method of claim 34, wherein the nail gun is selected from the group consisting of a spring-loaded nail gun, a pneumatic nail gun, an electro-magnetic nail gun, a combustion nail gun, and a motor driven nail gun.
40. The method of claim 34, wherein the nail gun further comprises a clutch



assembly.